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1964

MULTIPLE USE in ACTION

1964 IN REVIEW

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NORTHERN REGION

FEDERAL BUILDING
MISSOULA, MONTANA

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UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
NORTHERN REGION

FEDERAL BUILDING
MISSOULA, MONTANA

Multiple Use in Action is a brief review of Forest Service accomplishments during 1964 in resource management and administration of the 27 million acres of public lands in the 16 National Forests of the Northern Region.

Highlights of the year:

--timber sales at all-time record high.
--recreation visits exceeded 8,600,000.
--351,220 cattle and sheep grazed under paid permits.
--25% payments to counties at 5-year high.
--1,090 miles of roads constructed and reconstructed.
--nurseries produced 8,500,000 trees.

The title of this summary reflects Forest Service responsibility for administering these lands for outdoor recreation, range, timber, watershed, and wildlife and fish purposes under the Multiple Use Act of 1960. The Forest Service strives to achieve a sustained yield of the several products and services without impairment of the productivity of the land.

A growing population and industrial expansion are placing increasingly greater demands on the Forest Service for effective and efficient management of the National Forest resources.

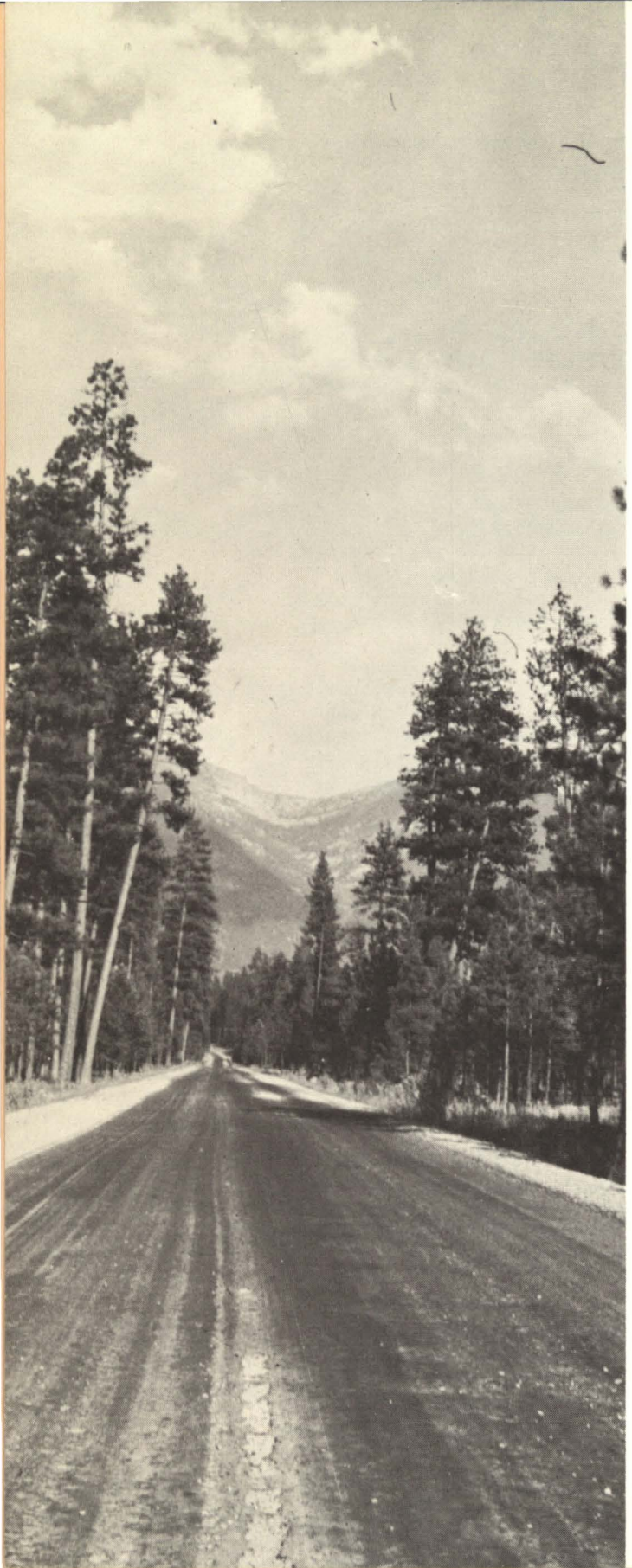
Our work is concentrated in three major areas: (1) management of the National Forests and National Grasslands, (2) cooperation with States and private forestland owners, and (3) basic forestry research. The Forest Service takes an active part in the programs of the U. S. Department of Agriculture designed to raise the economic levels of rural populations.

I hope this report will give you an overall understanding of the work of the Forest Service and the contributions of the National Forests of the Northern Region. If you have questions, suggestions, or comments, I'll be pleased to hear from you.

Sincerely yours,

Neal M. Rahm

NEAL M. RAHM
Regional Forester



ENGINEERING

National Forest engineering facilities are correlated with plans and objectives of multiple use management. Facilities must provide service for the protection and development of resources with efficiency, economy and minimum damage to the environment. Full consideration is given to the impact on range, recreation, timber, watersheds and wildlife.

Most Forest Service construction is done under contracts with private contractors. Plans, surveys and specifications are prepared by Forest Service engineers and architects. A new Materials Testing Laboratory in Missoula now provides accurate, scientific construction information on soils and construction materials.

June floods damaged and destroyed 465 miles of road, 360 miles of trail and 49 bridges. Most of these were repaired or replaced immediately. Approximately 60 miles of road, completely destroyed by the flood, will be reconstructed in 1965.

There are 22,405 miles of road and 24,423 miles of trail in the Region. Electronic data processing is saving manpower, time and money in the Region's road design work.

Of the 1,093 miles of road built this year, 726 miles were new roads and 367 miles were road reconstruction. The 139 miles of trail construction included 35 miles of new trails and 104 miles of trail reconstruction. Five new bridges were built; seven major new bridges were contracted.

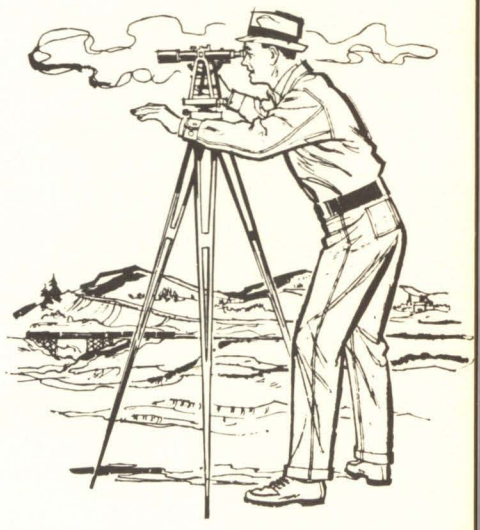
Holland Lake road, Flathead National Forest.

New West Fork Sun River trail bridge, Lewis & Clark National Forest.

Building construction included: 3-bedroom houses (7), office-warehouses (4), garage shops (3), gas-oil houses (2), barracks (6), warehouse, pumphouse, dual offices (2), equipment shop, cook-houses (2), and an administration building.

Plans have been completed for dial radio-telephone systems for the Lewis & Clark, Bitterroot and St. Joe National Forests. These will be installed next year. The Helena National Forest radio network has been converted to a high-band frequency system.

Water yield analyses have been completed for 16 Ranger Districts' multiple use planning. Engineering assistance was provided three Forests in the inspection of 30 major dams. Technical assistance was provided in the engineering and construction of Sather Dam in the Little Missouri Grasslands of North Dakota. A total of 950 water turbidity analyses were made for the Forests. Sewage stabilization lagoons were constructed at three ranger stations and several water and sewer systems were installed at administrative sites and recreation areas.



Accurate and current maps are basic for multiple use management and planning. Survey and map work this year included: 72 1-inch-to-the-mile Ranger District base maps; 370 township-size base maps; compiled and drafted 42 township-size soils maps; contracted three National Forest recreation maps; prepared a hunting-fishing map in cooperation with the Montana Fish and Game Department; prepared and contracted Forest series maps for the Coeur d'Alene, Kaniksu (East Half) and Custer (Beartooth Div.) National Forests; completed map maintenance on 107 2-inch-to-mile, 15-minute planimetric maps.

EQUIPMENT DEVELOPMENT CENTER

To promote economy, safety, and efficiency in the management of 182 million acres of public lands, the U. S. Forest Service maintains equipment development centers at San Dimas, California, and Missoula, Montana.

Proximity to forests under multiple-use management permits close contact with the needs of field peronnel. Equipment is designed and tested under realistic conditions.

To promote economy, the Missoula Center prepares purchase specifications for service-wide tools and equipment.

The Center informs field units and cooperating agencies of worthwhile innovations through bulletins, reports, movies and training sessions.

Examples of recent accomplishments: mobile fire lookout for high-hazard areas; firefighter survival shelter; helicopter accessories; and a one-man machine that digs fireline faster than three men with hand tools.

Current projects include: **Fire Control** – improved, flame-resistent clothing; fire camp equipment and rations; lighting for night fire fighting. **Engineering** – machines for building and maintaining trails; vehicles for cross-country travel, mobile shop for on-site sign maintenance. **Pest Control** – low-volume, pesticide spray equipment; tools for collecting insects; improved pesticide containers. **Timber Management** – improved equipment for transplanting and cultivating nursery stock; ground preparation machinery; methods for gathering cones, seeds. **Personnel** – Protective garments to reduce ax and chainsaw injuries; evaluation commercial safety devices such as hard hats, seat belts, first aid kits, etc.

Testing trail-building equipment.

Engineer studies mechanical transplanter operation.

PERSONNEL

Personnel Management is the management of people to provide an effective and efficient work force for Multiple Use Action Programs and Special Missions of the Northern Region.

Emphasis in this report is on actions taken to speed various personnel activities and efforts to reduce the impact on resource managers by activation of Personnel Sections within the Administrative and Business Management Organization at the National Forest level.

Decentralized National Forest administrative and business management organization was implemented with the placement or promotion of 15 additional section heads at the full operating level, including four Personnel Specialists.

Employment peaked at over 5,700, with a payroll of about $22,000,000. Employment processes and procedures were streamlined by delegation of employment authority to nine National Forests. This delegation will be extended to other Northern Region Forests next year.

Full activation of the personnel management program at the National Forest level includes position classification. Personnel specialists on the Forest are presently engaged in an on-the-job training program involving analysis and evaluation of Forest positions with guidance from the Regional Office. The U. S. Civil Service Commission is to provide basic position classification training for all Forest personnel specialists who have not attended such a course. Other Regions and Federal agencies will participate in the course. Limited classification authority will then be delegated to Forests.

Training Management training was emphasized this year. More participation was achieved through additional courses and training sessions. The Region increased participation in the problem-solving and decision-making area by providing a local course for Division Chiefs and Forest Supervisors.

The Middle Management Course was offered three times; approximately 90 employees attended. Instructor Training was provided approximately 45 employees in two sessions. Other agencies also sent personnel to these sessions.

Participation in courses offered by other agencies was continued to provide higher-level management training. Final work was done to provide Regional courses for 1965 in advanced management and ranger district management.

Hikers view Glacier Lake in Mission Mountains Primitive Area, Flathead National Forest.

RECREATION AND LANDS

Recreation Multiple use management preserves recreation values: scenery, clear streams and wildlife habitat. It also increases and enhances many recreation opportunities.

This year floods and a cool summer leveled off the rapid increase in visits to the Region's 16 National Forests. There were approximately 8.7 million visits during 1964, an increase of 3.7% over 1963. More than 75% of these recreational visits were to general multiple use areas; less than 25% were to developed recreation sites. Active participant sports – boating, swimming, winter sports, wilderness travel, and mountaineering – continue to increase in popularity. Irrigation and power impoundments add to the opportunities for water-oriented recreation.

Schweitzer Basin Ski Area was opened this year in the Kaniksu National Forest, near Sandpoint, Idaho. This is the Region's 17th winter sports area, developed and operated by private capital with Forest Service cooperation.

Recreation facilities include 4,200 family camp and picnic units at 370 locations; 52 boat landing ramps; and 20 developed beaches. Under special use permits, there are 23 organization camps, 54 resorts and other commercial facilities, and 1,170 summer homes.

Overnight camping charges ($1 per night), initiated at three Priest Lake campgrounds in the Kaniksu National Forest, were generally well accepted.

Wilderness The new Wilderness Act (Public Law 88-577), passed by Congress in September, places 2,470,477 acres of the

Region's National Forest land in the National Wilderness Preservation system; an additional 634,000 acres are managed as primitive area. Following public hearing in Libby, Montana, the Cabinet Mountain Primitive Area was reclassified by the Secretary of Agriculture as a Wild Area.

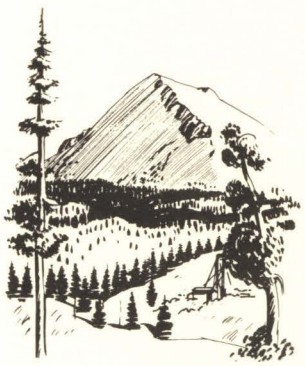
Access In areas where National Forest land is intermingled with state and private land, access, rights-of-way, road ownership, road maintenance and sharing of road construction costs are important in effective and efficient multiple use resource management and protection. This year arrangements were made for 286 rights-of-way involving a total of 299 miles and eleven agreements were formulated for cost sharing in constructing a single road system in areas of intermingled ownership.

Agreement has been reached with the State of Montana for use, improvement and maintenance of 195 miles of state roads in three state forests. Six counties incorporated National Forest Development Roads in their county road systems. This facilitates cooperative use, improvement and maintenance of these roads by the Forest Service and the counties. Negotiations are being completed for the purchase of the following private road systems: Elk River-Aquarius, Palouse River and Merry Creek road systems in the St. Joe National Forest; Fish Creek road system in the Lolo National Forest; and additional segments of the Fisher River road system in the Kootenai National Forest.

Land Adjustments Two large land exchanges, involving more than 16,000 acres in the Kaniksu and Colville National Forests, have been prepared and submitted to the Chief of the Forest Service.

Public domain lands in western Montana have been compiled and listed for transfer next year to the Lolo, Bitterroot, Flathead, Helena and Kootenai National Forests. This will involve approximately 25,000 acres of National Forest land. Sometimes it is necessary to withdraw National Forest lands from mineral entry to reserve areas for administrative or recreational use. This year 2,100 acres were withdrawn from mineral entry; withdrawals were revoked on 3,800 acres restoring the land to entry.

Approximately 1,500 badly deteriorated public land survey corners were remonumented. These control land ownership boundaries. About 25 miles of property boundary lines were marked on the ground in critical areas of potential trespass.



Minerals Mineral leasing returned $637,757 to the U.S. Treasury last year; 25% is returned to the state.

Under the Multiple-Use Mining Law of 1955, the Forest Service has reviewed and evaluated mineral claims on 22,911,655 acres in the Northern Region. Surface rights determinations were completed this year on 1,701,507 acres. Aside from 335 recognized mining claims, approximately 23 million acres of National Forest Land is available for multiple use resource management.

OPERATION

In its overall program planning, budgeting, coordination and control of the Region, the Division of Operation had a diversified year in 1964. As the principal division in administration and management practices, its efforts in furthering multiple use of National Forest resources into a productive action program is dynamic and continuing.

Job Corps Preliminaries in camp site selection began in 1962, under Youth Conservation Corps proposals. Governors approved the Trapper Creek (Bitterroot N.F.), Cedar Flat (Nezperce N.F.) and Curlew (Colville N.F.) Centers. Camp construction planning started in November; occupancy is scheduled for early in 1965.

Flood Emergency A cool spring, a long-delayed run-off and exceptionally heavy rainfall during a brief period set the stage for devastating floods June 9 and 10. Approximately 50% of the annual precipitation fell within 30 hours. A destructive wall of water left havoc in 11 National Forests. Principal damage was in the Lewis & Clark and Flathead.

The Forest Service moved quickly to help the needy, rescue the marooned, and cooperate with State, Federal and local officials in affected areas.

Emergency repairs restored access and services. Congress approved a two-year $7,900,000 restoration program. This includes repairs of: 17 buildings and water, sewer systems; 66 miles telephone lines; 5 airstrips; 14 cattleguards, miscellaneous improvements; 20 campgrounds; 11 soil, water projects; 43 miles stream channel debris removal; 52 miles of stream channel restoration, bank stabilization; 21 miles fisheries habitat restoration; 425 miles of road; 55 road bridges; 679 miles trail, bridges.

Accelerated Public Works All A.P.W. contracts and force account projects by Forests were completed this year. From October 1962 to the end of 1964, $6,127,000 in A.P.W. funds financed a variety of resource management, administrative and public service projects and activities.

Administrative Services Procurement and contracting service support for all multiple use activities is shared by the Forests and the Regional headquarters. The Region's purchase of supplies, materials, and equipment totaled about $6,730,000 in fiscal 1964; 25 per cent was by formal bidding.

Forests awarded 1,086 of the Region's 1,392 contracts and accounted for one-fifth of the $5,861,000 total amount contracted. Forest contracts averaged about $1,100; Regional headquarters' contracts averaged about $15,200. Almost all contracts were awarded to local firms.

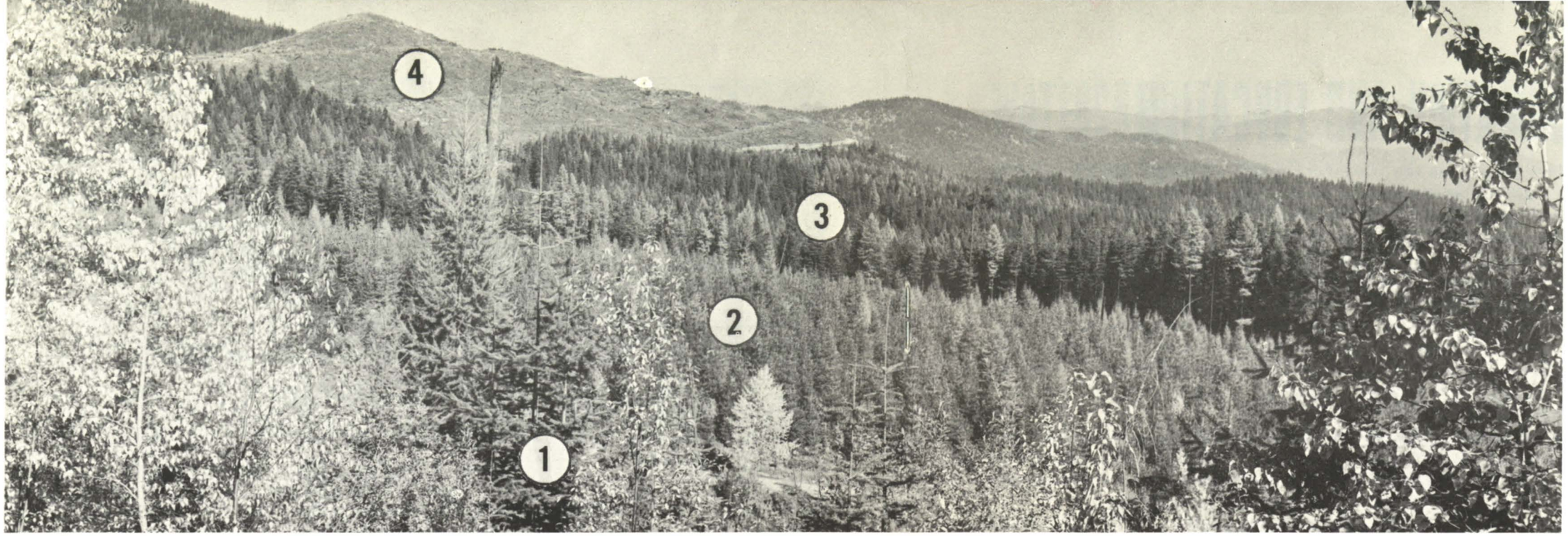
The Regional Sign Shop manufactured about 6,100 signs at a cost of $50,000 for use in marking roads and trails, camp and recreation areas, Forest and ranger station entrances, and historical sites and the like.

Sun River spilling over Gibson Dam, June 9, Lewis & Clark National Forest.

Modern quarters were acquired this year under General Services Administration leases, for five Montana Supervisors' Offices at Hamilton, Dillon, Butte, Helena and Bozeman, Montana.

Management Improvement Conversion of payroll and certain personnel management operations to the U.S. Department of Agriculture Center is being completed. Electronic data processing is also providing added efficiency in many multiple use problems of resource management; engineering and timber management operations are using EDP extensively.

Of the 180 employee suggestions this year, 65 were approved for cash awards totaling $3,000.



This scene, on the Falls District of the Kaniksu National Forest, illustrates four stages of timber management: young trees (1) in the foreground came in naturally after a forest fire; beyond is a white pine plantation (2), flanked in the background by a mature stand (3) ready for harvest; the ridge (4) to the left has been clearcut and planted.

TIMBER MANAGEMENT

Timber sale and harvest activities must be closely correlated with other uses of these public lands. Harvest roads provide access for sportsmen and other recreationists. Removal of timber increases browse production for wildlife. Road location and construction, cutting practices and logging methods are all planned so as to protect the soil and watershed.

An all-time record 1,535,236,250 board feet of timber was sold this year and 1,368,736,020 board feet was harvested. At the end of the year more than three billion board feet of uncut National Forest timber was under contract to timber purchasers.

Management plans, using a new inventory survey procedure, have been completed for the Kaniksu, Coeur d'Alene and Nezperce National Forests. Plan revisions are being completed for the Colville, Clearwater and Beaverhead; field sampling has been completed for the Gallatin. Photo classification of commercial forest land was used this year for the first time in forest inventory work in the Kootenai and Custer National Forests. Units in these two National Forests will be field sampled in 1965. Compartment Examination & Prescription is now routine in developing basic data for timber action plans and other multi-purpose management plans.

Cost accounting was initiated this year in a comprehensive study of the cost of growing timber. Reforestation and timber stand improvement costs are being analyzed with electronic computers to evaluate major cost variables. Results of these studies are being applied in reducing some improvement project costs.

Reforestation in 1964 included: planting 14,580 acres; direct seeding 1,080 acres; site preparation of 29,165 acres; and 25,759 acres regenerated naturally. Coeur d'Alene and Savenac nurseries produced and shipped 8,560,000 trees for planting in fiscal year 1964; these nurseries will produce an estimated 12,000,000 trees in 1965.

Stand improvement is fundamental to intensive, sustained-yield management of National Forest resources. Vigorous, well-formed, fast-growing trees contribute to the beauty of the forest, give cover for birds and small animals, prevent erosion and encourage herbaceous growth for big game feed.

Prolific nature often produces overstocked stands of trees. Density prevents maximum timber growth. Thinning, weeding out poor quality trees and removing competitive brush permits maximum production of merchantable trees.

Timber stand improvement this year included: thinning of 13,214 acres; release and weeding of 6,268 acres; and pruning trees on 575 acres.

INFORMATION AND EDUCATION

More people use the National Forests each year. More of them find they have interests in and concern about the management of these public resources. Thus there is increasing need for current information.

Approximately 6,000 requests were answered this year in the Regional Headquarters. These do not include the wide variety of inquiries that come to the Forest headquarters and Ranger Stations every day. Many of them require research and special maps and photographs. Answers called for personal letters, photographs, movies, telephone calls, map folders, workshops, meetings and conventions, field trips, booklets and maps, assistance to writers, radio and TV writers-producers, and increased participation in school, college and university programs.

Scheduling and shipping of educational and training films has been adapted to electronic data processing to facilitate the booking and handling of the 500 films in the Regional library. More than 400,000 people viewed these films at some 3,600 showings this year.

More than 3,500 black and white photographs provide illustrations for technical, professional, trade and educational publications. These photographs are also used in Forest Service publications; to answer requests from publishers, newsmen, and free-lance writers; in preparing displays; and developing in-service training programs. Fifty-four portable exhibits were used at more than 150 workshops, conventions and professional and technical meetings in this area.

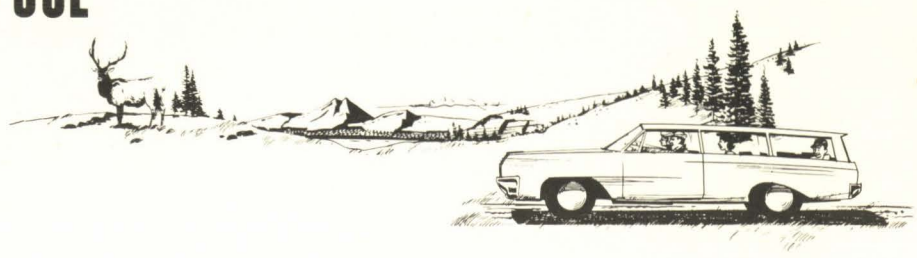
Colored slides have proved effective for training meetings, conservation lectures, and professional and technical publications. More than 8,000 people viewed the 75 sets of colored slides on 10 subjects, available from the regional library.

Women from throughout the Northwest attended the 4th annual Conservation Workshop for Women, conducted at Yellow Bay on Flathead Lake by Montana State University and the Forest Service. Conservation education teaching kits — more than 4,000 — were sent to teachers throughout the five-state Region.

Visitor information was provided this year to more than 1.6 million National Forest visitors along the Beartooth Highway, at the Missoula Aerial Fire Depot, in the Madison River Canyon, and along Idaho's Priest Lake. Plans are being completed with the Bureau of Reclamation for operating a cooperative Visitor Center at Hungry Horse dam in Flathead National Forest. In the summer of 1965 this center will provide information to about a million visitors. Plans are also being completed for improving visitor services along the historic Lewis & Clark route through Montana and Idaho.

New publications this year included: visitor map guides to the Custer, Flathead and Lewis & Clark National Forests; a Beartooth Country map-folder; a new wilderness guide, a range analysis brochure and special hunter map-folders, published in cooperation with the Montana Fish & Game Department.

WATERSHED AND MULTIPLE USE MANAGEMENT

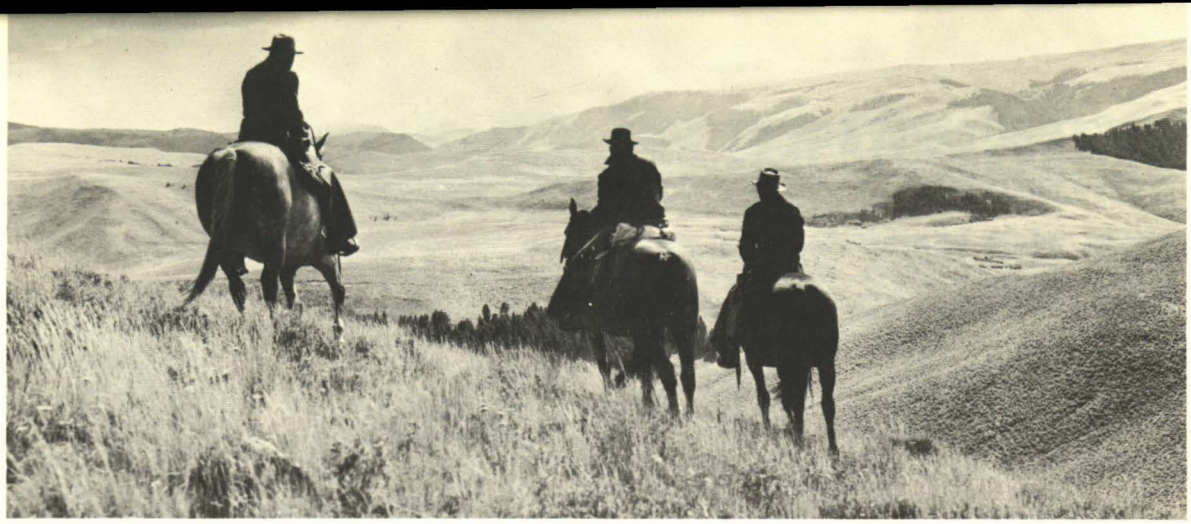


The Multiple Use Sustained Yield Act of 1960 directs the management of all the renewable resources and related activities on National Forest lands in such combinations that the maximum number of people receive the maximum benefits from these resources over the longest possible period of time without impairment to the productivity of the land. Accomplishment of this objective requires, among other things, that multiple use plans be made for each Ranger District, based on the available knowledge of the interrelationships of the resources and specifying the methods necessary to obtain the desired combinations. To date 90 District multiple use plans have been prepared, and 14 other plans are nearly complete.

Basic to the formulation of these multiple use plans is knowledge concerning soil types and conditions (which largely determine the potential use and development of the land) and water flow quality and quantity under existing conditions and under those that will result following proposed management activities.

By the end of 1964 soil surveys had been completed for approximately 1.5 million acres of National Forest land — 250,000 acres of this in 1964 alone. In addition, special soil consultation services provided more localized and detailed soils information to land managers faced with unusual problems. These special studies included the Gallatin Elk Winter Range and several areas where research projects are under way.

To learn more accurately how the management of the land and its resources affects water flows, a series of "barometer" watersheds are being installed. On these watersheds accurate records will be kept of all resource management activities and the types of water flow that result. Work on the first of these "barometer" watersheds was started this year in Meadow Creek, in the Nezperce Forest. In addition, watershed staff specialists were assigned to three more National Forests this year; they are gathering basic streamflow data and surveying the needs for watershed rehabilitation projects. Several of these men were detailed away from their regular assignments to collaborate with the U. S. Geological Survey in measuring flood discharges and to survey and prepare rehabilitation plans for stream channels following the severe floods that plagued the Region this year.



Forest Ranger and ranchers inspect the Horse Prairie grazing allotment in the Beaverhead National Forest.

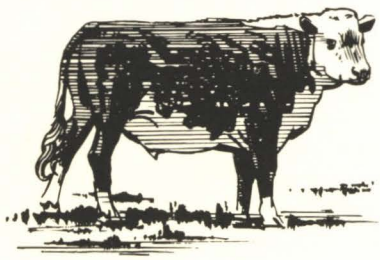
RANGE AND WILDLIFE

Range Grazing of domestic livestock plays a major role in the Region's multiple use program. Approximately 145,000 cattle and 155,000 sheep grazed on the six million acres of usable range in the National Forests. Nearly 60,000 cattle and 8,400 sheep grazed 1,250,000 acres in the National Grasslands. About the same number grazed in 1963.

Recreation livestock use is increasing steadily. It is estimated 11,000 horses and mules grazed in Wilderness and other back country areas this past year.

The Regional range allotment analysis, initiated in 1956 to analyze the range resource and plan improved management systems, is showing results. Almost all Forests and Grasslands have initiated intensive management on at least one allotment. These allotments serve to demonstrate that optimum grazing use can be achieved in correlation with other uses such as timber production, wildlife and recreation. The objective is to achieve full development on all allotments.

Range management implies control, not only of animals, but of the environment. Control means fences, water developments, herding and salting, and revegetation. In 1964 almost 200 miles of fence and approximately 180 water developments were constructed to improve management. Much of this was accomplished by the permittees through cooperative agreements.



Herbicide spraying for the control of big sagebrush is one of the most important range improvement tools. Forage production has been increased from two to four fold on treated areas. In 1964 approximately 20,000 acres were sprayed in the Beaverhead, Deerlodge and Helena National Forests. Herbicide spraying requires careful coordination with wildlife habitat. Important big game winter areas are left unsprayed. Care is also used to preserve some sage in important sage grouse areas.

Proper coordination of range management with wildlife habitat management depends on accurate information. A cooperative

study with the Montana Fish & Game Dept. is being conducted near Lima, in the Beaverhead National Forest, to develop information on the effect of sagebrush removal on sage grouse.

Noxious weeds reduce forage productivity and pose a potential threat to adjacent farms and ranches. The Forest Service is cooperating with County Weed Control Districts to eliminate or prevent the spread of noxious weeds. Cooperation with the Extension Service facilitates the exchange of information on infestation and coordination of control efforts. The Agricultural Research Service is helpful in recommending techniques and herbicides for control. In turn the Forest Service apprises the ARS of success with various methods and formulations. Dalmation toadflax, leafy spurge, and Russian knapweed are the most troublesome weeds.

Wildlife Hunting and fishing visits increased in the Northern Region from 741,163 in 1953 to 2,158,000 in 1963. Hunters in 1964 harvested 91,000 big-game animals in these National Forests and National Grasslands.

Wildlife habitat management is an important activity in multiple use management of National Forests. Last year the Northern Region revegetated 1,021 acres of key game areas and improved 30 miles of trout streams. Tall browse was killed back on 507 acres to encourage root sprouting. These young sprouts make good winter game food; the tall, top growth was out of the reach of the animals. Other improvements included: waterfowl habitat improvement, new fishing lakes, water developments, and fencing of key areas to exclude cattle. State Fish & Game departments cooperated in most of these projects.

Other multiple use management activities benefit wildlife. For example timber harvesting can be beneficial to wildlife. More than 100,000 acres of National Forest land was logged this year, leaving a pattern of uncut and cutover lands that will provide good bird and mammal habitat for at least 40 years. In this time logging will open new areas in the forest, thus contributing to a sustained wildlife population. Fire is also used to improve the game habitat.

North of Yellowstone National Park, along the Gallatin River, the Forest Service is working in close cooperation with the National Park Service and the Montana Fish & Game Commission to control the elk herd and restore this valuable winter game range.

The Forest Service and the Montana Fish & Game Department are also cooperating in studies of elk-cattle competition on summer and spring-fall ranges in the Highwood Mountains of the Lewis & Clark National Forest and in the Elkhorn Mountains of the Helena National Forest. Data from the competition studies will be useful in formulating management plans for both livestock and wildlife.

Ranger districts maintain a continuing inventory of big-game ranges. Of the 27 million acres in the Northern Region, 2,323,245 acres are classified as key big-game winter range.

STATE AND PRIVATE FORESTRY

This Division is responsible for cooperative forestry programs administered through State Foresters. The Division administers the insect and disease control programs on all forest lands; control programs on non-Federal lands are done in cooperation with State Foresters.

Cooperative Fire Protection The 1964 fire season in western Montana and northern Idaho had above average precipitation resulting in a reduction in number of fires and acres burned. A late season drying period in eastern Montana caused concern, but did not raise fire occurrence nor acres burned above average.

Montana and Idaho Forestry Departments obtained several additional pieces of excess military equipment and modified them for use in their fire control programs. Both Departments completed a 5-year area and cost study of their fire protection programs under the Clarke-McNary Act.

Cooperative Forest Management encompasses the programs of nursery production, tree planting, and private land forest management assistance.

Idaho and Montana nurseries distributed 1,600,000 trees and shrubs for planting on non-Federal lands. In both states 1,745 acres of nonstocked, non-Federal forest land and 351 miles of windbreaks were planted or seeded.

There are seven woodlands and service foresters in northern Idaho and Montana who work in farm forestry. These foresters helped 950 woodland owners and operators in various phases of woodland management, harvesting, and marketing. With Agricultural Conservation Program cost-sharing help, timber stand improvement was done on 1,300 acres of private woodland.

The Forest Service helps other USDA agencies with the Department's Rural Areas Development Program. The Northern Region provides technical help to local groups, and Forest Service employees serve on 29 state and county RAD Technical Action Panels. In 1964 Area Redevelopment Administration loans made possible the building of two forest products plants which will employ about 250 people. The Forest Service helped ARA determine the feasibility of these plants.

The Benewah, Latah, and Kootenai Soil and Water Conservation Districts of Idaho and the Latah-Rock Creek Soil and Conservation District of Washington are sponsoring a Resource Conservation and Development project covering almost 2,250,000 acres (65 per cent commercial forest land). The Forest Service and the Idaho State Forestry Department cooperated in the forestry portion of the project plan.

Insect and Disease Forest insects and diseases do not respect landownership. They attack trees of all ages, from seedlings to over-mature trees. A wide variety of insect and disease

control techniques, ranging from genetics to biological, are being used to help trees make their full contribution to multiple use resource management.

Approximately 8,500 parasitic wasps were reared this year and released to establish biological control of the needle-eating larch case-bearer. Polyhedral virus was collected and processed for use in spraying 10,000 acres of northern Idaho forests that are infested with the Douglas-fir tussock moth.

Antibiotics were used in treating 100,000 acres of western white pine stands infected with blister rust; 158,000 acres of Douglas-fir were aerially treated with an insecticide to control the destructive spruce budworm. Silviculture and logging techniques were used on approximately 16,000 acres to control dwarfmistletoe and to minimize other losses.

Tussock moths killed most of these Douglas-fir trees near Coeur d'Alene, Idaho

FIRE CONTROL

Because wildfire destroys timber, watersheds, recreation, forage and wildlife, fire control is fundamental of multiple-use management. Controlled fires are useful in reducing fire hazards, eliminating undesirable growth and preparing areas for new crops of timber and forage.

Fire prevention is incorporated in all Forest Service work: from planning a timber sale to management of a campground.

The 788 wild fires of 1964 were about half the 5-year average. Lightning caused 566 of these fires; 222 were man-caused. They burned a total of 2,600 acres.

Wet summer weather was a factor in the small number of forest fires, but man-caused fires proved a significant problem in the dry fall. There were 93 man-caused fires during the hunting season in September and October.

Speed in fire detection and suppression on more than 27 million acres requires detailed planning, thorough training and modern equipment. The Region's 180 Smokejumpers made a total of 598 jumps to 171 fires in this and neighboring Regions. These specialists worked an additional 1,400 days in support of ground forces.

Three 30-man crews of special firefighters were trained and assigned to regular Forest work until required for fire fighting. They were used on eleven large fires in Montana, Idaho, Wyoming, Utah and California. Approximately 700 Montana Indian fire fighters were assigned to nine forest fires in Montana and Nevada.

Aircraft dropped 64,600 gallons of chemical fire retardant, dropped 24,500 pounds of cargo and delivered 723,500 pounds of air freight in connection with 25 forest fires. Helicopeters were used in transporting men and supplies to 73 fires this year.

Controlled fires were used to burn approximately 40,000 acres to eliminate logging debris, eradicate brush, and to kill parasites. Fire is a valuable tool for reducing fire hazards, eliminating high-hazard areas of insect-killed timber; it is also effective in preparing areas for planting, cleaning firelines and clearing new roadways.

Starting a controlled burn to remove logging slash in the Kaniksu National Forest, on Falls District.

FISCAL CONTROL

National Forest operations are financed by Congressional appropriations, based on substantiated budgets approved by the Secretary of Agriculture and the Bureau of the Budget.

Expenditures for the construction and acquisition of physical improvements – roads and trails, recreation areas, telephone lines, administrative buildings, fire structures and other similar improvements – are classified as "Investment" expenditures. "Operating" expenditures include those funds used for management and protection of the National Forest resources, maintenance of roads, trails, and other improvements – equipment operation and the purchase of hand tools, supplies and services related to maintenance.

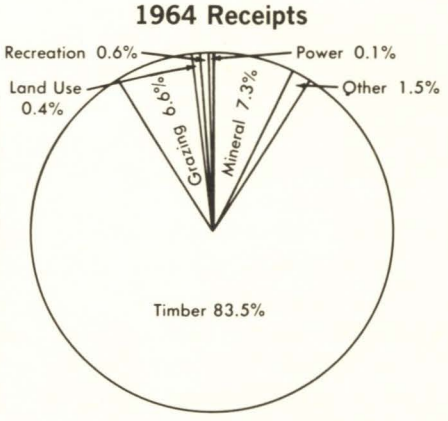
Receipts in fiscal year 1964, paid to the U. S. Treasury, were:

National Forest Fund	**$7,858,414***
National Grasslands	**788,626****
Other Miscellaneous Receipts	**137,317**
	$8,784,357

*Counties containing National Forest lands received 25% of these funds, $1,964,603, for county schools and roads.
**Twenty-five per cent of this amount was paid to the respective counties.

Receipts consisted of the following:

Timber	**$7,336,213**
Grazing	**582,656**
Land Use	**30,457**
Recreation	**56,623**
Power	**3,334**
Mineral	**637,757**
Other	**137,317**
TOTAL	**$8,784,357**



The appendix contains a condensed statement of Northern Region receipts and expenditures for fiscal year 1964, the 25 percent payment to counties, the 10 percent road and trail fund payments and the Forest highway allocation.

CONDENSED STATEMENT RECEIPTS AND EXPENDITURES NATIONAL FOREST PROGRAMS — FISCAL YEAR 1964

	RECEIPTS	EXPENDITURES	
		Operating	Investment
NAT'L. FOREST PROTECTION — LU PROJECTS			
Protection & Management		$11,945,323.49	$ 1,869,201.49
Fighting Forest Fires		2,971,666.80	
Insect and Disease Control		2,218,919.16	56,924.01
Access Roads		969.40	162,023.36
Road & Trail System, Construction & Maintenance		4,109,051.02	5,510,277.54
Flood Prevention & Watershed Protection		7,198.23	
Public Works Acceleration		160,513.18	2,331,756.50
Coop. Deposits (incl. timber deposits for stand improvement)		93,215.99	2,794,698.45
Operating ....$ 82,860.50			
Investment $3,769,686.66	$ 3,852,547.16		
NAT'L. FOREST & NATIONAL GRASSLAND RECEIPTS			
National Forest Fund	7,858,414.64		
National Grasslands	788,626.25		
Other Misc. Receipts	137,317.55		
TOTAL	$12,636,905.60*	$21,506,857.27	$12,724,881.35

*This does not include amounts collected by Federal Power Commission for power licenses and by Dept. of Interior for mineral leases on National Forest Lands.

EXPENDITURES — F. Y. 1964

EXPLANATION	TOTAL	OPERATING	INVESTMENT
Timber Resource Management	$ 8,343,428.81	$ 4,574,157.57	$ 3,769,271.24
Insect and Disease Control	2,275,843.17	2,218,919.16	56,924.01
Range Resource Management	1,313,379.76	1,045,917.67	267,462.09
Land Management, Minerals and Acquisitions	773,314.03	773,314.03	—0—
Recreation Uses	1,900,716.84	1,172,476.86	728,239.98
Wildlife Habitat Management	329,671.47	317,443.21	12,228.26
Soil and Water Management	448,405.88	413,612.49	34,793.39
Forest Fire Protection	5,411,370.76	5,411,370.76	—0—
Maintenance of Fire and General Administrative Structural Improvements	1,124,303.58	1,124,303.58	—0—
Construction of Fire and General Administrative Structural Improvements	1,849,726.33	312,715.90	1,537,010.43
Forest Roads and Trails	10,454,379.76	4,135,427.81	6,318,951.95
Flood Prevention and Watershed Protection	7,198.23	7,198.23	
TOTAL	$34,231,738.62	$21,506,857.27	$12,724,881.35

RETURNS TO LOCAL GOVERNMENTS
from
NORTHERN REGION NATIONAL FORESTS
Fiscal Year 1964 (July 1, 1963-June 30, 1964)

STATE	25% Direct Return to Counties (1)	10% Roads and Trails (2)	Forest Highway Allotments (3)	TOTAL	Total Acres in National Forest Land	Cents Per Acre	Acres of Commercial National Forest Land	Cents Per Acre	TOTAL RECEIPTS NATIONAL FOREST FUND
Montana	$1,010,574	$404,229	$2,450,000	$3,864,803	16,637,748	23.2	10,619,500	36.3	$4,042,295
Idaho	702,136	280,854	2,417,000	3,399,990	6,865,858	49.5	4,728,000	71.9	2,808,544
Washington	249,928	99,971		349,899	1,215,457	28.7	1,092,100	32.0	999,712
So. Dakota	1,966	786		2,752	73,707	3.7	11,700	23.5	7,864
	$1,964,604	$785,840	$4,867,000	$7,617,444	24,792,770	30.7	16,451,300	46.3	$7,858,415

CENTS PER ACRE RETURN TO LOCAL GOVERNMENT FROM ALL NATIONAL FOREST LAND

Montana	6.0	2.4	14.7	23.2	16,637,748
Idaho	10.2	4.0	35.2	49.5	6,865,858
Washington	20.5	8.2		28.7	1,215,457
South Dakota	2.6	1.0		3.7	73,707
Weighted average total	7.9	3.1	19.6	30.7	24,792,770

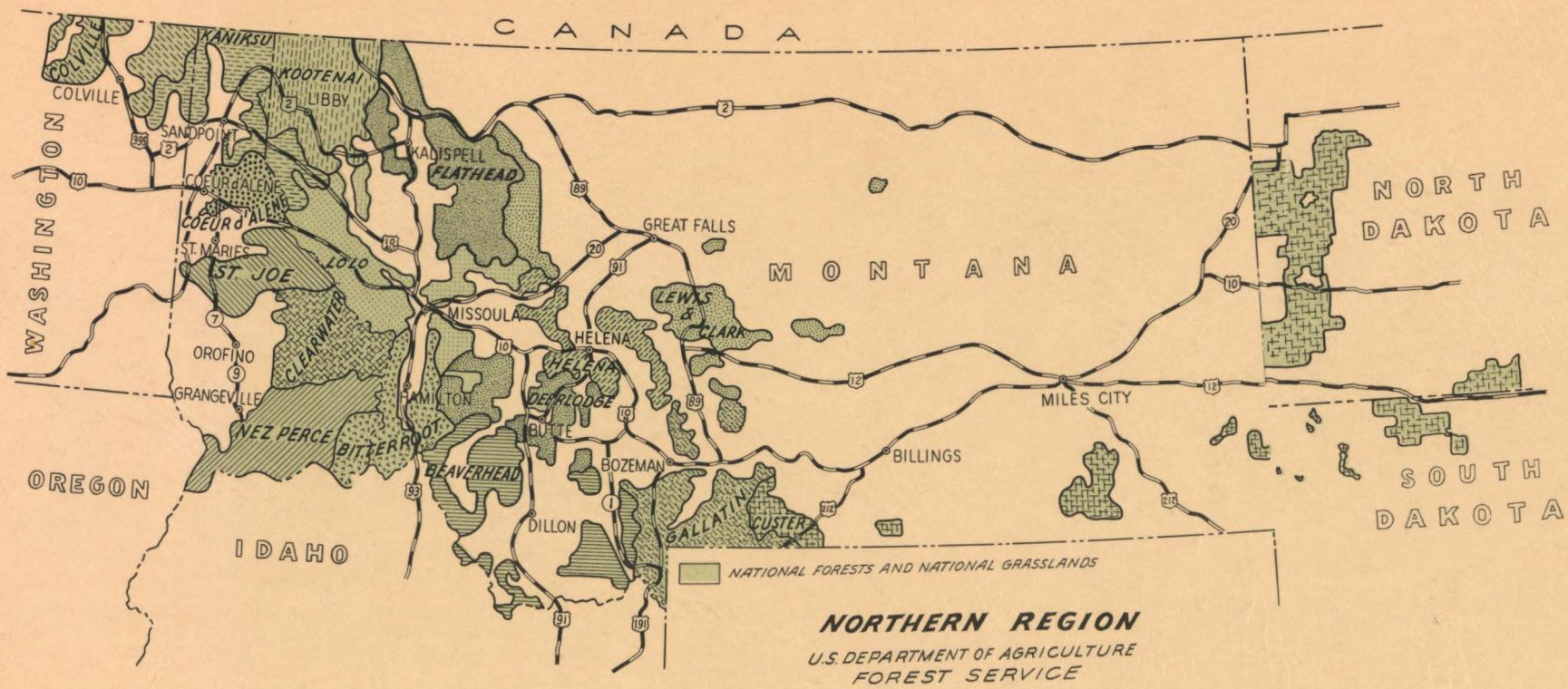
CENTS PER ACRE RETURN TO LOCAL GOVERNMENT FROM NONRESERVED COMMERCIAL NATIONAL FOREST LAND

Montana	9.5	3.8	23.0	36.3	
Idaho	14.8	5.9	51.1	71.9	10,619,500
Washington	22.8	9.1		32.0	4,728,000
South Dakota	16.8	6.7		23.5	1,092,100
Weighted average					11,700
total	11.9	4.7	29.5	46.3	16,451,300

(1) By law, 25 per cent of the annual gross receipts of the National Forests is returned through the states to the road and school funds of the counties in which the National Forests are located.

(2) Ten per cent of the National Forest receipts is made available by congressional appropriation each year for the construction and maintenance of Forest Service roads and trails.

(3) Forest Highway Funds are appropriated annually by Congress for distribution to the states containing National Forests. They do not require matching by state construction funds. Their use is programmed by joint agreement of the State Highway Department, Bureau of Public Roads, and the Forest Service.



NORTHERN REGION

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE